

REMARKS

The following remarks are in response to the Office action dated October 21, 2004. In the Office action, the Examiner rejected claims 8-16 and 23-31 under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 5,109,152 to Takagi, claims 8 and 23 under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 5,355,413 to Ohno; and claims 1-7, 17-22, and 32-33 under 35 U.S.C. 103 as obvious over Takagi in view of U.S. Patent No. 5,651,123 to Nakagawa. However, the present invention would not be obvious in light of Takagi, Nakagawa, and Ohno.

Some aspects of the present invention permit communication between two devices based on whether one or more of the devices have pre-existing information about the other device or prior connections with the other device.

Takagi, on the other hand, teaches a device which generates and encrypts a random number and a second device which receives, decrypts, re-encrypts, and transmits the number. As generally discussed in the second half of column 4, the object of Takagi is to prevent forgery of authentication devices by utilizing the encryption of a random number.

In other words, Takagi does not teach or suggest the present invention of Claim 1. Takagi does not teach two devices which store identifiers from each other and, after a disconnection and reconnection, exchanging these identifiers again to determine whether or not the two devices should proceed with further communication. Rather, Takagi is directed to the authentication of an IC Card whenever the card is entered into a card reader. Takagi does not store information concerning whether that particular IC Card and card reader have exchanged identifiers in the past.

The Examiner agrees that Takagi does not teach all of the elements of claim 1 alone, and therefore argues that claim 1

is obvious in view of Takagi and Nakagawa, assuming there is even a suggestion to combine the two references together.

However, Nakagawa does not teach the claimed elements that are missing from Takagi. Nakagawa teaches a program execution control device for reading instructions at a high speed. Nakagawa stores instructions in a memory with a pseudo-random number counter used for outputting addresses of instructions stored in the memory. Nakagawa does not disclose stored identifiers from two devices which enable a device to determine whether further information can be sent. Thus, Nakagawa fails to disclose or suggest this element of claim 1.

Although the Examiner states that claim 8 is anticipated by Takagi, the Examiner does not state, nor does Takagi show, all of the elements of claim 8. By way of example only, Takagi does not teach a method of authentication using an identifier from a value which is created based on "the number of times the device has been authenticated." Takagi only discloses a method of authentication using encryption of random numbers. Thus, Takagi does not teach every element of claim 8.

The Examiner also states that claim 8 is anticipated by Ohno. Ohno is directed to an authentication method using the encryption of a random number and a time data item. Like Takagi, Ohno fails to disclose a method of authentication using an identifier based on the number of times the device has been authenticated. Thus, Ohno does not teach every element of claim 8.

The Examiner asserts that claim 17 is obvious in view of Takagi and Nakagawa. However, Takagi does not disclose an increment counter associated with a value representing the number of times the system has taken an action in response to a signal from the device. Nakagawa further fails to disclose an increment counter as discussed above.

Even if Takagi and Nakagawa did teach every element of claims 1, 18, and 32 – which they do not – there is no motivation or suggestion to combine the references. Takagi is directed to an authentication method while Nakagawa is directed to a device for executing stored instructions. One skilled in the art seeking to construct an authentication device or method would not seek to utilize a program execution device which stores program instructions in an address sequentially designated with a pseudo-random number sequence.

The Examiner asserts that claim 23 of the present invention is anticipated by Takagi and Ohno. Both Takagi and Ohno fail to disclose all of the elements of claim 23. For example, Ohno fails to teach the use of a seed value in an authentication system. Claim 23 is directed to a method for authentication wherein a destination device maintains a seed value which is equal to a seed value maintained by a source device. The seed value changes over time. The seed value is further dependent upon the number of connections between the two devices (for an example of one way in this may be accomplished, see paragraph 47). Ohno uses a random number and a time data item in authentication. Ohno does not disclose the use of a seed value or the use of any value which depends upon the number of connections between the two devices.

Claim 23 is also not anticipated by Takagi. Takagi fails to disclose the use of any value which depends on the number of connections between the two devices. Thus, Takagi does not disclose every element of the claim.

Claim 32 is patentable over the prior art in light of the fact the first device sends a value based on both the output of a pseudo-random number generator and an identifier. The second device receives the value, compares the received value with a prestored value, and sends or receives information

depending upon the outcome of the comparison. This feature is not disclosed by Takagi, Nakagawa, or Ohno.

Though patentably distinct in their own right, the recite limitations in addition to those recited in the independent claims discussed above. For this reason alone, these claims are submitted as being patentably distinguishable over the cited art.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are respectfully requested.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 518-6325 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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